

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 15670-0054US1	Application No. 10/528,348
<b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)		Applicant Gregory C. Roberts, et al.	
		Filing Date November 7, 2005	Group Art Unit <del>2677</del> 2886

(37 CFR §1.98(b))

**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	1	6,529,272	03/04/2003	Flagan et al.			

**Foreign Patent Documents or Published Foreign Patent Applications**

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	2	WO 2004/027380	4/1/2004	WIPO				

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	3	Albritton DL, Meiro Filho LG, "Technical summary," In: Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change (Houghton JT, Ding Y, Griggs DJ, Noguer M, van der Linden PJ, Dai X, et al., eds). New York: Cambridge University Press, pp. 21-85.
	4	Bartlett, B. M., and G. P. Ayers, "Static diffusion cloud chamber," J. Rech. Atmos., Vol. 15, No. 3-4: 231-233 (1981)
	5	Charlson, R. J. et al., "Climate Forcing by Anthropogenic Aerosols," Science 255:423-430 (January 24, 1992)
	6	Chuang, P.Y., "Design of a CCN instrument for airborne measurement," Journal of Atmospheric and Oceanic Technology, 17: 1005-1019 (2000)
	7	Chuang, P.Y. et al., "Kinetic limitations on droplet formation in clouds," Nature 390: 594-596 (December 11, 1997)
	8	Delene, D. J., "A balloon-borne cloud condensation nuclei counter," J. Geophys. Res., Vol. 103, No. D8, pp. 8927-8934, (April 27, 1998)
	9	Facchini, M. C. et al., "Surface tension of atmospheric wet aerosol and cloud/fog droplets in relation to their organic carbon content and chemical composition," Atmospheric Environment 34: 4853-4857 (2000)
	10	Fukuta, N., and V. Saxena, "A horizontal thermal gradient cloud condensation nucleus spectrometer," Journal of Applied Meteorology, 18: 1352-1362, (October, 1979)
	11	Hegg, D. A. et al., "Laboratory studies of the efficiency of selected organic aerosols as CCN," Atmospheric Research 58: 155-166 (2001)
	12	Hoppel, W. A. et al., "A Segmented Thermal Diffusion Chamber for Continuous Measurements of the CN," Journal of Aerosol Science 10(4): 369-373 (1979)
	13	Hudson, J. G., "An instantaneous CCN spectrometer," Journal of Atmospheric and Oceanic Technology, 6: 1055-1065 (1989)
	14	Kaufman, Y.J. et al., "Smoke, Clouds, and Radiation -Brazil (SCAR-B) experiment," J. Geophys. Res. Vol. 103, No. D24: 31783-31808 (1998)
	15	Köhler, H. "The nucleus in and the growth of hygroscopic droplets," Trans. Faraday Soc., 32, 1152-1161 (1936)
	16	Laaksonen, A.P. et al., "Modification of the Köhler equation to include soluble trace gases and slightly soluble substances," J. Atmos. Sci. 55: 853-862 (1998)

Examiner Signature /Tara Pajoohi/	Date Considered 02/10/2009
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(37 CFR §1.98(b))			

Other Documents (include Author, Title, Date, and Place of Publication)		
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	17	Lala, G. G., and J. E. Justo, "An automatic light scattering CCN counter," J. Appl. Meteor., 16: 413-418 (April 1977)
	18	Mircea, M. et al., "The influence of the organic aerosol component on CCN supersaturation spectra for different aerosol types," Tellus 54B: 74-81 (2002)
	19	Nenes, A. et al., "A theoretical analysis of cloud condensation nucleus (CCN) instruments," J. Geophys. Res., 106: 3449-3474 (2001)
	20	de Oliveira, J.C.P. and G. Vali, "Calibration of a photoelectric cloud condensation nucleus chamber," Atmospheric Research, 38: 237-248 (1995)
	21	Raes, F., "The 2 <sup>nd</sup> Aerosol Characterization Experiment (ACE-2): general overview and main results," Tellus 52B: 111-125 (2000)
	22	Ramanathan, V. et al., "Indian Ocean Experiment: An integrated analysis of the climate forcing and effects of the great Indo-Asian haze," J. Geophys. Res. Vol. 106, No. D22, pp. 28371-28398 (November 27, 2001)
	23	Ramanathan, V. et al., "Aerosols, climate and the hydrological cycle," Science, 294(5549): 2119-2124 (2001)
	24	Roberts, G.C. et al. "Sensitivity of CCN spectra on chemical and physical properties of aerosol," J. Geophys. Res., Vol. 107, No D20, 8070, 37-1 to 37-18, (2002).
	25	Roberts, G.C. and A. Nenes, "A Continuous-Flow Streamwise Thermal-Gradient CCN Chamber for Atmospheric Measurements," Aerosol Science and Technology 39: 206-221 (2005)
	26	Roberts, G.C. et al., "A Continuous-Flow Longitudinal Thermal-Gradient CCN Chamber for Airborne Measurements," Abstract for American Association for Aerosol Research, 21 <sup>st</sup> Annual AAAR Conference, October 7-11, 2002, Charlotte, North Carolina, 1 page
	27	Rogers, C.F., and P. Squires, "A new device for studies of cloud condensation nuclei active at low supersaturations," Atmospheric Aerosols and Nuclei, Proceedings of the Ninth International Conference on Atmospheric Aerosols, Condensation and Ice Nuclei, edited by A. Roddy, and T. O'Connor, Galway University Press, University College, Galway, Ireland, September 21-27, 1977, pp. 96-100
	28	Rosenfeld, D., "TRMM observed first direct evidence of smoke from forest fires inhibiting rainfall," Geophys. Res. Lett., Vol. 26, No. 20, pp. 3105-3108, (October 15, 1999)
	29	Saxena, V. K., and J.C. Carstens, "On the operation of cylindrical thermal diffusion cloud chambers," Le Journal de Recherches Atmosphériques, 5: 11-23 (1971)
	30	Shulman, M.L. et al., "Dissolution behavior and surface tension effects of organic compounds in nucleating cloud droplets," Geophysical Research Letters Vol. 23, No. 3, pp. 277-280 (1996)
	31	Sinnarwalla, A. M. and D.J. Alofs, "A cloud nucleus counter with long available growth time," J. Appl. Meteor., 12: 831-835 (August, 1973)
	32	Smolik, J. and V. Ždímal, "Condensation of Supersaturated Vapors of Diethylphthalate: Homogeneous Nucleation Rate Measurements," Aerosol Science and Technology 20(1): 127-134 (1994)
	33	Twomey, S., "Measurements of natural cloud nuclei," Le Journal de Recherches Atmosphériques, 1: 101-105 (1963)
	34	Twomey, S., "The influence of pollution on the short-wave albedo of clouds," J. Atmos. Sci., 34: 1149-1152 (1977)

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	35	Twomey, S. and T.A. Wojciechowski, "Comments on 'Anomalous Cloud Lines,' " J. Atmos. Sci. 25: 333-334 (1969)

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